

## 9.0 ENVIRONMENTAL SCAN

An environmental scan was conducted for the US-91 North Corridor Plan to characterize existing environmental conditions and determine whether there are significant environmental resources that could influence transportation improvement options considered as part of the corridor plan.

### 9.1 Climate

The climate of the US-91 North Corridor area is moderate with cold winters, warm summers, and low levels of annual precipitation. The average annual temperature ranges from about 59° F in the Fort Hall area to 56° F in Idaho Falls.<sup>19</sup> The average minimum temperature is about 32° F. Temperatures range from a lows of 27 to 33° F in January to highs of 87° F in July.

Annual precipitation in the study area is low at 11 inches per year in the Fort Hall area to 10 inches in Idaho Falls. Snowfall averages about 23 inches in the Fort Hall and Blackfoot areas but up to 35 inches in the Idaho Falls area at the north end of the corridor. Average snow depths are between 2 to 5 inches.

### 9.2 Topography and Geology

The US-91 North Corridor is dominated by the relatively flat topography of the Snake River floodplain and terraces formed along the rivers. The elevation across the project ranges from approximately 4400 feet to 4600 feet above sea level.

US-91 in the project area traverses a river terrace formed generally above the present day flood plain on the east bank of the Snake River. This terrace was deposited during the Holocene to Upper Pleistocene periods.<sup>20</sup> The native subsurface soils generally consist of sandy silt or silty sand overlying gravel that is covers basalt bedrock. These soils generally constitute a two to four foot stratum overlying dense gravels and gravelly sand soils.

The Snake River plain is not considered to be seismically active although the areas along its borders have active faults. Mapped active faults are located within 45 miles of US-91 with the nearest active fault located near Soda Springs, Idaho.

### 9.3 Soils

Soils within the corridor study area have been characterized by the Natural Resources Conservation Service (NRCS) of the United States Department of Agriculture (USDA).

NRCS refers to the southern portion of the corridor as the Fort Hall Area, encompassing portions of Bannock, Bingham, Caribou and Power Counties. Based on a soil survey released in 1977<sup>21</sup>, the soils of the Fort Hall Area include large areas of sandy eolian and alluvial deposits on the low plateaus and alluvial fans and terraces in the Fort Hall community and lower Blackfoot River areas. The predominant soils that formed are Quincy, Feltham, Tindahay, and Escalante soils. The sandy materials have been blown from alluvial terraces along the Snake and Blackfoot Rivers and from the areas near the mouth of other streams

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<sup>19</sup> Western Regional Climate Center, *wrcc@dri.edu*

<sup>20</sup> Scott, W.E., *Surficial Map of the Eastern Snake River Plain and Adjacent Areas, 111° to 115° West, Idaho and Wyoming*, United States Geological Survey, MAP I-1372, 1982

<sup>21</sup> Natural Resources Conservation Service (formerly Soil Conservation Service), *Fort Hall, Idaho Soil Survey Report*, March 1977.

and creeks. The alluvial deposit consists of thick strata of water worn gravel of mixed lithology under lay or sandy alluvium.

The Bingham Area Soil Survey<sup>22</sup> indicates that soils in the Bingham County area of US-91 also reflect alluvial deposits. The area is bisected by the Snake River and the Blackfoot River. These two rivers have formed smooth, nearly flat alluvial terraces. East and west of the terraces is a mantle of loess covering the irregular basalt flows. Deposits consist of deep beds of water worn gravel, overlain by loamy or sandy alluvium. Bannock, Bock, Hayeston, Heiseton, and Packham series are the main soils whose parent material is mostly of Snake River origin. Soils of Blackfoot, Wapello, Firth and Stan series have been influenced by deposits from the Blackfoot River.

The then Soil Conservation Service of the U.S. Department of Agriculture also conducted a soil survey of the Bonneville County Area.<sup>23</sup> In the vicinity of US-91, alluvial soils were deposited as wide, nearly level terraces by the Snake River and its tributaries. Most of these deposits are deep beds of water worn gravel that is of mixed origin and is overlain by loamy or sandy alluvium. Typical soils include Bannock, Bock, Harston, Heiseton, and Stan soils deposited by the Snake River.

Prime and unique farmlands are also designated by the Natural Resources Conservation Service. Information obtained from on-line GIS files indicates that the lands on both sides of the US-91 in the study area are considered prime and unique farmlands. Information was not available for much of the Fort Hall Reservation Area. This area of the US-91 North Corridor likely has soil characteristics similar to those to the prime farmlands that lie immediately to the north and south.

## 9.4 Water Resources

Water resources include floodplains, surface waters, groundwater, wells and wetlands. The location of floodplains in the US-91 North Corridor study area is shown in Figures 9-1, 9-2 and 9-3.

### 9.4.1 Floodplains

FEMA flood insurance rate maps (FIRMs) for the project alignment and mapped floodplains are listed in Table 9-1. Floodplains have not been mapped for a considerable portion of the project area. Within the Fort Hall Reservation, there is no floodplain map coverage.

Within the project area, there are six areas along US-91 mapped as "Zone A" floodplains (FEMA 1979) (Figure 18). These areas are within the 100-year floodplain, that is, areas with a probability of flooding greater than 0.01 for any given year.

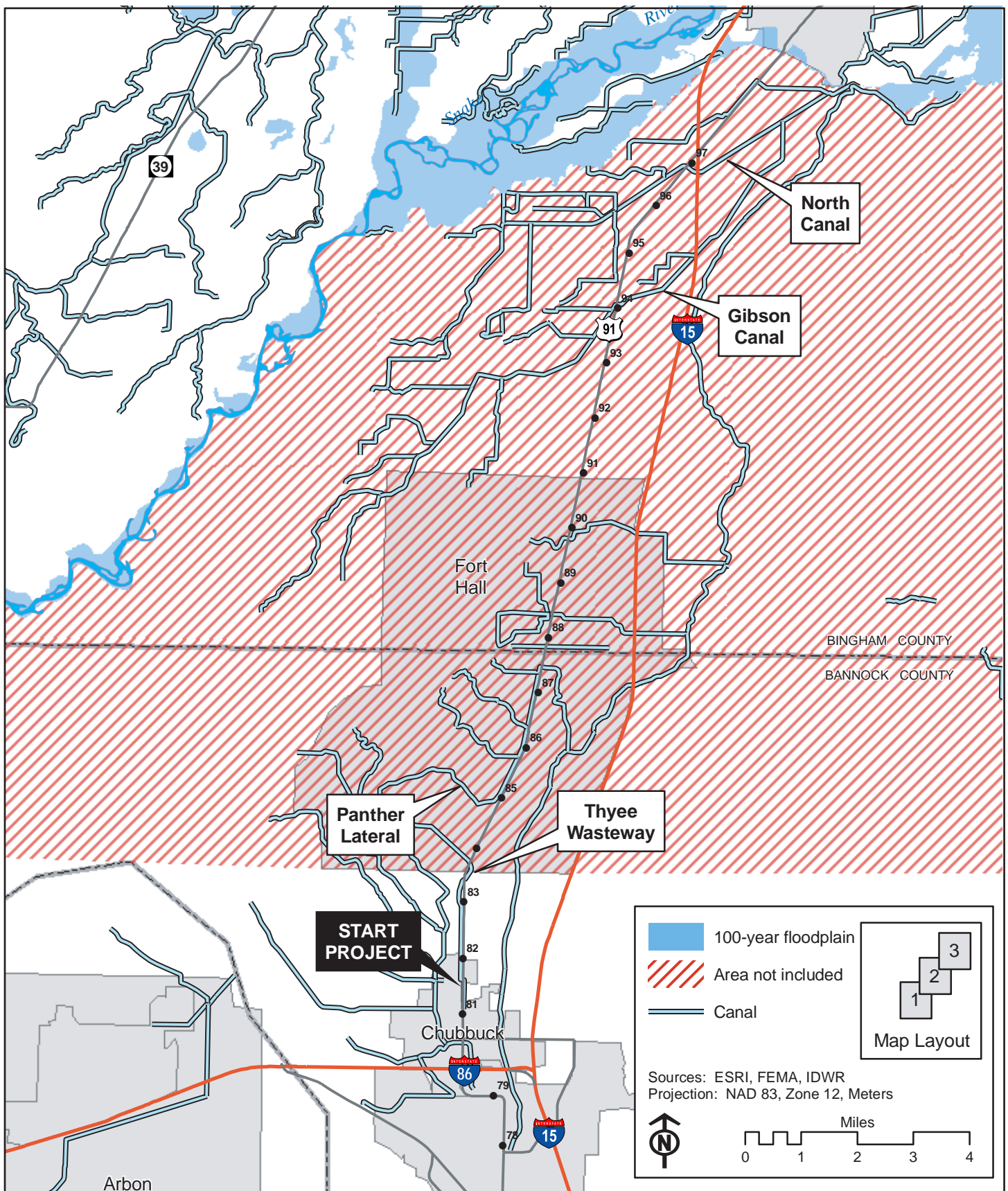
The area between the southern boundary of the Fort Hall Indian Reservation and the Blackfoot River is unmapped for floodplains.

The first mapped floodplain area is located at approximately MP 99.5 where US-91 crosses the Blackfoot River and associated floodplain. South of Firth (MP 111 – 112) US-91 is adjacent to a 500 year (Zone B) floodplain of the Snake River. At the north end of Firth, the highway runs through a 100 year Snake River floodplain at MP 112-113. West of the town of Basalt, the Snake River 100 year floodplain is located adjacent to the west side of US-91.

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<sup>22</sup> Natural Resources Conservation Service (formerly Soil Conservation Service), *Soil Survey Report of Bingham Area*, October 1973.

<sup>23</sup> Soils Conservation Service, U.S. Department of Agriculture, *Soils Survey of the Bonneville Area, Idaho*, July 1981.



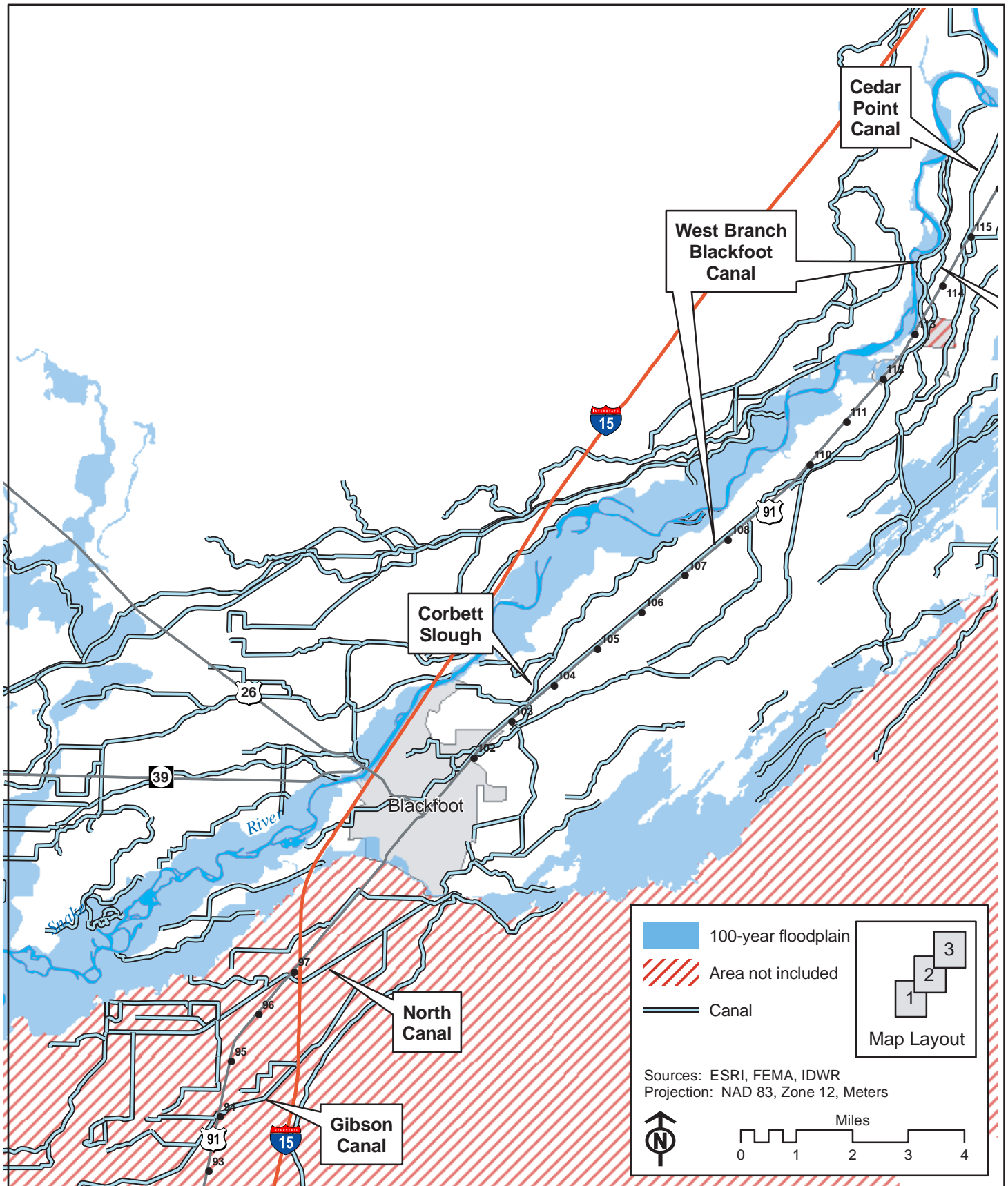
Project No. STP-1767(101) Key No. 8116

FEMA Designated Floodplains

Figure 9-1

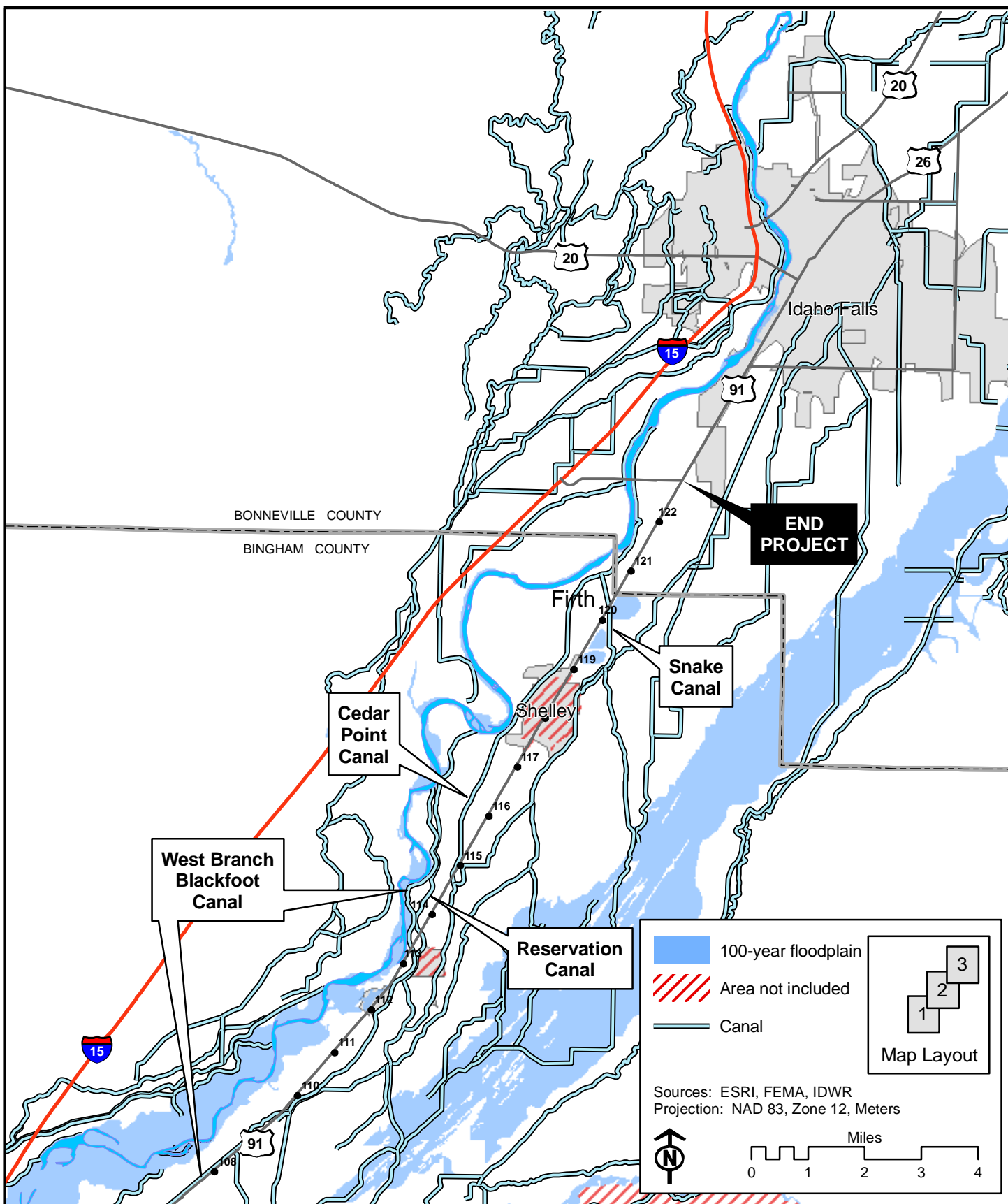
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	Project No. STP-1767(101)    Key No. 8116		
	<b>FEMA Designated Floodplains</b>		
		Figure 9-2	
		Date: August 2007	





Project No.STP-1767(101)

Key No.8116

FEMA Designated Floodplains

Figure 9-3

Date: August 2007



Table 9-1: FIRM Coverage for US-91 North Corridor

Panel Number	Floodplains in Study Area	Mile Point (between)	Notes
Incorporated Chubbuck, Map 160162			
160162	Unmapped		Unmapped
Bannock County, Map 160009			
0050B	None		Ft Hall Res. Unmapped
Bingham County, Map 160018			
0600B	Unmapped		Unmapped
0625B	Unmapped		Unmapped
0440C	Unmapped		Unmapped
0430C	US-91 crosses Blackfoot River and floodplain south of Blackfoot.	99-100	
0435C	None		
0270B	Snake River Zone B adjacent to west side of US-91 just south of Firth.	111-112	
0280B	Snake River Zone A floodplain about 160 feet west of Basalt	113-114	
0165B	Three Zone A floodplains	119-121	East of roadway, two appear modified on Air photos.
Incorporated Blackfoot map 160019			
0002C	US-91 crosses Blackfoot River Zone A floodplain at south end of City of Blackfoot.	99-100	
Incorporated Firth map 160136			
0001A	Snake River Zone A floodplain covers US-91 roadway at north end of Firth.	112-113	
Incorporated Shelley map 160192			
			Unmapped
Bonneville County, Map 1600270			
240C	None		
230C	None		

There are isolated 100-year (Zone A) floodplains mapped along the east side of US-91 at MP 119.2 to 119.3, and at approximately MP 119.4 to 119.7. Neither of these floodplains is associated directly with streams or other surface water features. The final floodplain area is a Zone A floodplain adjacent to the Snake River Valley Canal, and is located at approximately MP 120.6 where the canal passes under US-91. The FEMA Flood Insurance Rate Map (FIRM) [FEMA 1979] shows the extent of the floodplains ending at the eastern edge of the US-91 road prism. The floodplains between 119 and 120 appear to be relatively isolated depressions. These areas were mapped in 1979. Since 1979, it appears that there has been development along US-91 in these Zone A areas. It is likely that with this development, the elevation has been altered (increased) such that the 1979 map may no longer reflect the actual extent of flooding along US-91.

### 9.4.2 *Surface Waters*

The US-91 North Corridor project area historically developed for agriculture and contains an extensive irrigation canal system. US-91 crosses several canals between Siphon Road and Sunnyside Road. The canals are generally used for irrigation and are seasonally inundated. The water quality of these canals is unknown, and many are only seasonally inundated. Table 9-2 lists the surface waters (canals) crossed by the project.

### 9.4.3 *Groundwater*

The project area is located in the Eastern Snake River Plain (ESRP) sole source aquifer area<sup>24</sup>. The Snake River flows along part of the southern boundary of the ESRP and is the only drainage that leaves the plain. A high degree of connectivity with the regional aquifer system is displayed over much of the river as it passes through the plain. However, some reaches are believed to be perched or separated from the main groundwater by unsaturated rock, such as the Lewisville-to-Shelly reach. Regional groundwater flow is to the southwest paralleling the basin<sup>25</sup>.

Many private wells, and a few public water systems have wells within about 0.25 mile of the project.

The City of Shelley (Public Water System Number 6060071) community water system consists of four groundwater source wells located within the City of Shelley that pump directly into the distribution system. The system serves approximately 3,700 persons through 1,130 connections. All of the wells in the water system are within one-half mile of US-91. Wells 1 and 2 are located on the east side of and quite close to US-91 (IDEQ 2002). Contaminants that have been detected in the City of Shelley water system include coliform bacteria, arsenic, barium, chromium, cyanide, fluoride, nitrate, selenium, and tetrachloroethylene (IDEQ 2002)). None appear to be highway related.

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<sup>24</sup> Brennan T.S., A.K. Lehmann, A.M. Campbell, I. O'Dell, S.E. Beattie. 2002. Water Resources Data, Idaho, 2002. Volume 1. Great Basin and Snake River Basin above King Hill. Water-Data Report ID-02-1

<sup>25</sup> IDEQ (Idaho Department of Environmental Quality). 2002. City of Shelley (PWS 6060071) Source Water Assessment Final Report.

Cosgrove, D.M., G.S. Johnson, S. Laney, and J. Lindgren, 1999, Description of the IDWR/UI Snake River Plain Aquifer Model (SRPAM), Idaho Water Resources Research Institute, University of Idaho, 95 p.

deSonneville, J.L.J, 1972, Development of a Mathematical Ground water Model: Idaho Water Resources Research Institute, University of Idaho, Moscow, Idaho, 227 p.

Garabedian, S.P., 1992, Hydrology and Digital Simulation of the Regional Aquifer System, Eastern Snake River Plain, Idaho, U.S. Geological Survey Professional Paper 1408-F, 102 p., 10 pl. I-FY92.

Lindholm, G.F., 1996, Summary of the Snake River Plain Regional Aquifer-System analysis in Idaho and Eastern Oregon, U.S. Geological Survey Professional Paper 1408-A, 59 p.

Table 9-2: Surface Water Crossings

Stream	Milepost	Tributary to	Notes
Tyhee Wasteway	82-84	Fort Hall Main Canal	West and parallel to US-91 from Siphon Rd to just south of Reservation Road. Crosses about 300 yards south and north of Reservation Road.
Panther Lateral	85	Poplar Lateral	West and parallel to US-91 from Frasure Road to Cemetery Road
Poplar Lateral	86	Ross Fork	West and parallel to US-91 from Cemetery Road to Ellsworth Road
Pine Lateral Aqueduct	86	Fort Hall Main Canal	Crosses south of Edmo Road
Palm Lateral	86	Poplar Lateral	West and perpendicular to US-91 joins Poplar lateral south of Edmo Road
Township Lateral	87	Fort Hall Main Canal	Crosses US-91 at south end of Fort Hall Reservation
Gibson Drain	89	Gibson Canal	Crosses US-91 within Fort Hall Reservation north of Sheepskin Road
English Lateral	92.5	Gibson Canal	Crosses US-91 south of Bronco Road
Gibson Canal	93	Blackfoot River	Crosses US-91 just north of Johnson Road.
Nectar Lateral	94	Nomad Lateral	West and parallel to US-91 from north of Truchot Road to north of Ferry Butte Road
Nile Lateral	96	North Canal	East and parallel to US-91 from MP96 to gravel pit north of Willie Road.
North Canal	96	Blackfoot River	Crosses US-91 just south of I-15/US-91 South Blackfoot Interchange
Arch Lateral	97	Blackfoot River	West and parallel to US-91 from about MP98.5 to Stone Road
Ash Lateral	99	Arch Lateral	Crosses US-91 at Stone Road
Arc Lateral	99	Arch Lateral	Crosses US-91 at Stone Road
Bow Lateral	99	Arch Lateral	Crosses US-91 at Stone Road
Dixie Lateral	99	Blackfoot River	Crosses US-91 300 yards southwest of Blackfoot River
Blackfoot River	99	Snake River	Crosses US-91 at southwest end of Blackfoot, ID
Divide Ditch	102	West Branch Blackfoot Canal	Crosses US-91 200 yards southwest of Rose Road
West Branch Blackfoot Canal	101-110	unknown or none	West and parallel to US-91 from about Ridge Street to MP109, then crosses US-91 at approximately MP110
Corbett Slough Canal	103	Snake River	Crosses US-91 north of Merkley Lane
Snake River	113	Columbia River	A side channel of the Snake River is adjacent to and west of US-91.
Blackfoot Canal	113	Snake River	Crosses US-91 at about MP 113.5
Reservation Canal	113	Snake River	Crosses US-91 at about MP 113.8
Cedar Point Canal	116	Snake River	Crosses US-91 at about MP 116.5
Snake River Valley Canal	120	Snake River	Crosses US-91 just north of MP120



#### 9.4.4 Wetlands

The U.S. Fish & Wildlife Service's National Wetlands Inventory database (USFWS website 2005) and Idaho Fish and Game were the data sources for this section.

Approximately 40 acres were visually surveyed for wetland resources. This acreage is within a linear corridor primarily along the west side of US-91. The study corridor along the east side of US-91 is a narrow strip of land that lies between the existing highway pavement and the Union Pacific rail line. On the west side of US-91, the study corridor measured from approximately 50 to 100 feet wide.

The location of wetlands within approximately 500<sup>26</sup> feet of either side of US-91 is shown in Figures 9-4, 9-5, and 9-6. According to the U.S. Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI) database, there are five documented wetlands within 500 feet of the US-91 road shoulder within the study corridor. Table 9-3 lists the NWI-documented wetlands from south to north, their Cowardin classification, and approximate milepost location, size, and perpendicular distance from US-91.

**Table 9-3: National Wetland Inventory Wetlands Recorded Within 0.10 mile of US-91 Study Corridor**

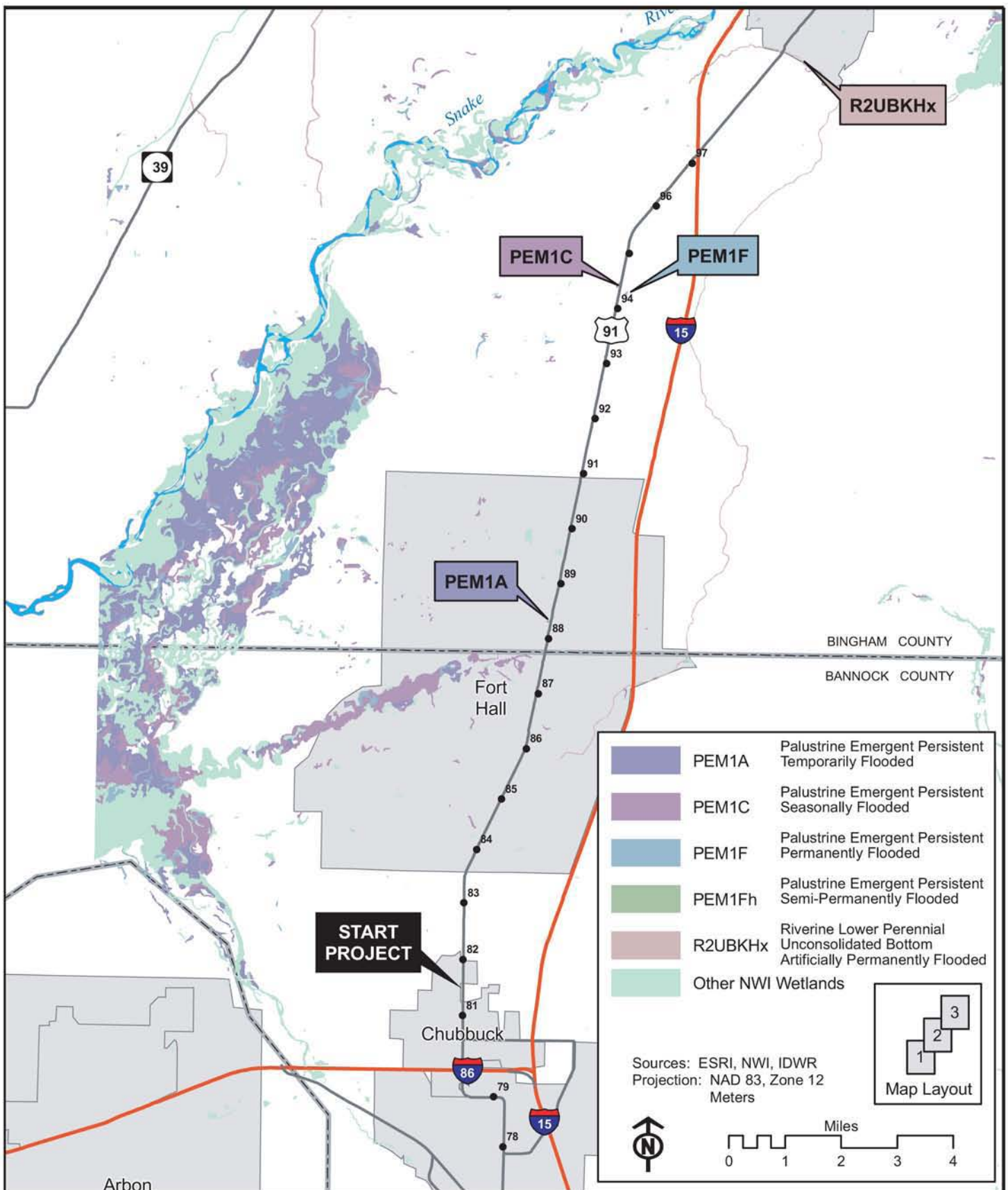
NWI Wetland	MP	(Potentially) Associated Waters	Approximate Size (acres)	Approximate Distance from US-91 (feet)
PEM1A	88.3	--	0.55	375
PEM1F	94.4	--	1.85	325
PEM1C	94.5	Nectar Lateral	2.74	210
R2UBKHx	99.5	Blackfoot River	31.23	0
PEM1Fh	103.6	West Branch Blackfoot Canal	2.89	300

PEM – Palustrine Emergent; 1 – Persistent; A - Temporarily Flooded; F - Semi-Permanently Flooded; C - Seasonally Flooded; R2 - Riverine Lower Perennial; UB - Unconsolidated Bottom; K - Artificially Flooded; H – Permanently Flooded; x – Excavated; F - Semi-Permanently Flooded; h - Diked/Impounded

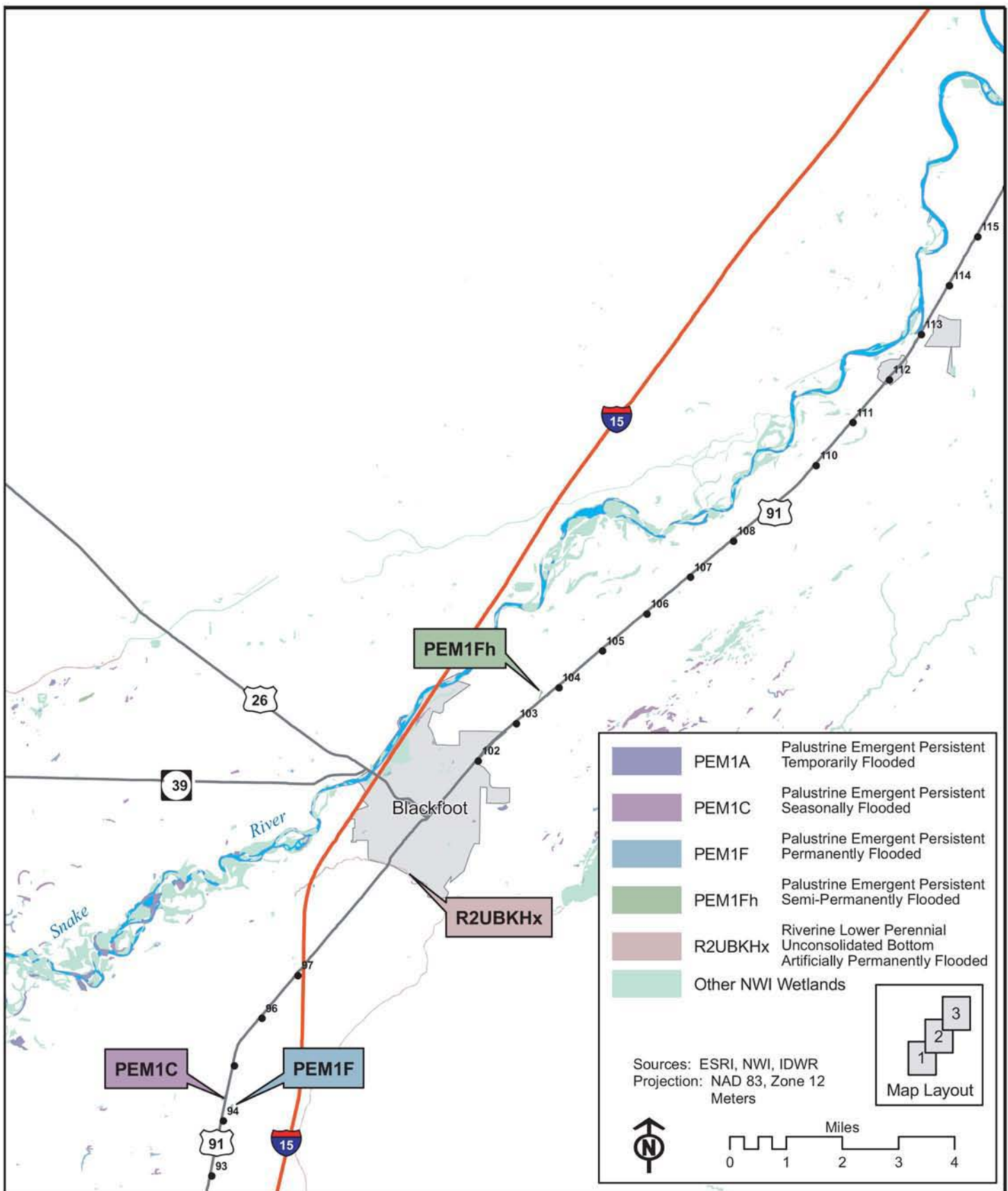
The Idaho Division of Fish and Game submit wetlands data information to the USFWS for incorporation into the NWI database. Any wetland data approved by the USFWS will therefore be included in the NWI database. Additionally, the Idaho Conservation Data Center database contains no known occurrences of special status plants or plant communities either within or adjacent to the project area.

Table 9-2 indicates that twenty-five water features are either crossed by US-91 or parallel the highway within approximately 200 feet of the road shoulder. Potentially seven of these features may have associated wetlands. A field reconnaissance conducted on November 16, 2004, identified three possible jurisdictional wetlands associated with the following waters of the United States that are crossed by US-91: Blackfoot River, Blackfoot Canal, and the Snake River Valley Canal. Vegetation within the ordinary high water mark (OHWM) of the Snake River Valley Canal suggests that this portion of the canal exhibits strong characteristics of a wetland. In addition, four constructed waterways may also support associated wetlands: Tyhee Wasteway, Panther Lateral, Gibson Canal, and Reservation Canal. These waterways are most likely also waters of the United States if they are found to be connected to either the Blackfoot or the Snake Rivers.

<sup>26</sup> 500 feet was selected as a conservative distance to account for any GIS inaccuracies and to encompass any possible wetland buffer (300 feet maximum).

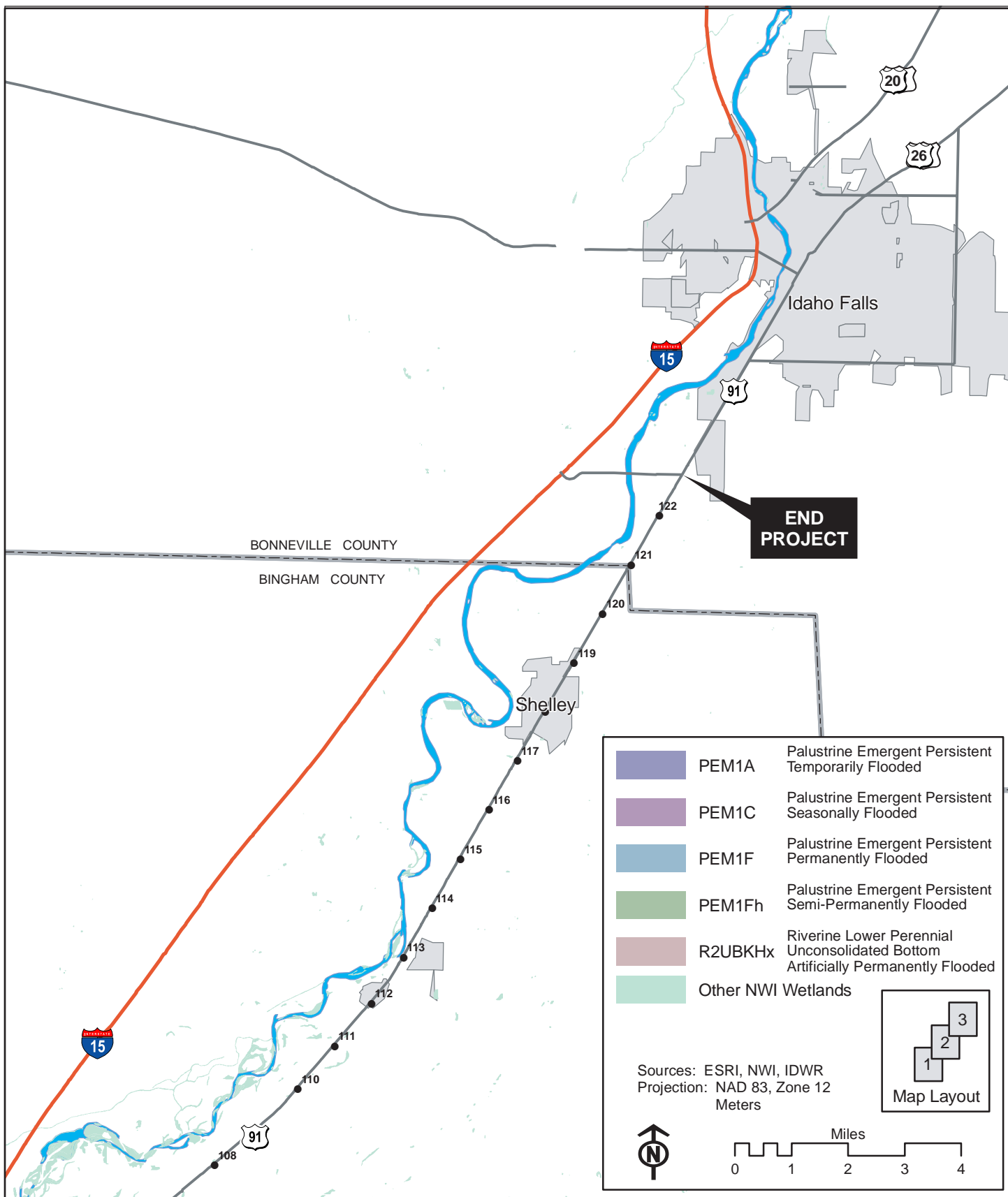


	Project No. STP-1767(101) Key No. 8116		
	<p>National Wetland Inventory</p> <p>Figure 9-4</p> <p>Date: August 2007</p>		



Project No. STP-1767(101)    Key No. 8116	
National Wetland Inventory	Figure 9-5
	Date: August 2007





Project No. STP-1767(101)

Key No. 8116

National Wetland Inventory

Figure 9-6

Date: August 2007



There is also a small roadside ditch that extends north of the Snake River Valley Canal on the west side of US-91. If this feature has a surface water connection with the Snake River Valley Canal, then it may also be determined a jurisdictional feature. Water/wetland delineations will need to be performed at these locations to determine the actual presence of a wetland and/or its connection to a water of the U.S.

Finally, two depressional areas on the west side of the (clover-leaf) intersection between US 26 and US-91 may be jurisdictional wetlands. Soils mapped for this area are identified as Heiseton fine sandy loam, drained (map unit 11). This map unit is included on the hydric soils list for Bonneville County although only 5 percent of its composition is estimated to be hydric (Xeric Torrifluvents). These areas may be potential wetlands, although likely manifestations of highway construction.

If field delineations verify the presence of wetlands in any of these areas, the U.S. Army Corps of Engineers has the final determination of whether or not these wetlands are, in fact, jurisdictional.

## 9.5 Wildlife Habitat

Information on wildlife habitat in the project area was obtained through reference to the Idaho Conservation Data Center (ICDC 2005) data for the project area, and a two-day windshield survey of the US-91 corridor between Idaho Falls and Pocatello, conducted on November 16 and 17, 2004.

The majority of the project area contains agricultural lands, primarily cultivated fields. Other habitat types that occur in the project area include sagebrush/bitterbrush habitat, riparian habitat associated with the Blackfoot River and with various canals, and areas predominated by grass and herbaceous vegetation.

The majority of the area adjacent to the US-91 corridor contains cultivated agricultural fields that have limited value as wildlife habitat. Other wildlife habitats that occur within the project area include areas of grasses and herbaceous habitat, located primarily in narrow strips along the highway edge. In the southern portion of the project area, areas of sage brush/bitter brush habitat are located adjacent to the roadway. Due to the linear nature of the habitat, the habitat value is limited but likely used by small mammals. Riparian habitat with a tree and shrub component occurs in association with the crossing of the Blackfoot River. Additional riparian habitat occurs along canals and is comprised primarily of small shrubs, grasses, and herbaceous vegetation. This habitat is most likely used by small mammals and song birds.

## 9.6 Threatened and Endangered Species

Information about threatened and endangered species potentially occurring within the US-91 project area was derived from the following sources:

- U.S. Fish and Wildlife Service lists of endangered, threatened, proposed, and candidate species in Bannock, Bingham, and Bonneville Counties;
- Idaho Conservation Data Center (ICDC 2005) data for the project area; and
- A two-day windshield survey of the US-91 corridor between Idaho Falls and Pocatello, conducted on November 16 and 17, 2004.

Listed species that have the potential to occur in the project area and their listing status are shown in Table 9-4.

Table 9-4: Listed Species Potentially Occurring in the US-91 Project Area

Common name	Scientific name	Status
Gray wolf	<i>Canis lupus</i>	Experimental/non-essential
Bald eagle	<i>Haliaeetus leucocephalus</i>	Threatened
Utah valvata snail	<i>Valvata utahensis</i>	Endangered
Canada lynx	<i>Lynx canadensis</i>	Threatened

No proposed species were identified as potentially occurring in the project area, however one candidate species, the Yellow-billed cuckoo (*Coccyzus americanus*) was identified as potentially occurring in the project area.

### 9.6.1 Gray Wolf

Within the State of Idaho there are two different population segments of wolves, with wolves located north of Interstate 90 in the northern portion of the State listed and threatened and managed as such under Endangered Species Act (ESA) and wolves south of Interstate 90 listed as a nonessential experimental population and are managed under special regulations as allowed in Section 10(j) of the ESA (59 FR 60266-60281). Since the US-91 project area is located south of interstate 90, wolves in or near the project area would be a part of the nonessential experimental population.

Wolves in Idaho occur primary in the central, mountainous portion of the State and no wolf packs or pairs are known to occur in the project area (Mack and Holyan, 2004). A member of the public reported a wolf observation the vicinity of US-91 and the project area is within the estimated range of wolf habitat in the State (Idaho Department of Fish and Game 2005). Gray wolves are not expected to regularly occur within the project area, however, due to predominance of agricultural lands and a lack of suitable habitat for the species in the area. The project area is located between the area occupied by the Idaho nonessential experimental wolf population and a second such population located within the Greater Yellowstone Ecosystem and it is likely that the wolf observed within the project area was a dispersing individual from one of these populations.

### 9.6.2 Bald Eagle

The Snake River corridor between Idaho Falls and the American Falls Reservoir, and the American Falls Reservoir, is Bald Eagle wintering habitat (ICDC 2005). The US-91 corridor is not located within this habitat, however wintering bald eagles may forage outside of this habitat, and may be drawn to road-kill carrion along US-91 on occasion. No bald eagle nesting habitat is identified in the ICDC data (ICDC 2005) and no potential nesting habitat was observed within the area of potential affect of the project during the two-day field visit to the site.

### 9.6.3 Utah Valvata Snail

The known historic range of the Utah valvata snail extended from the outlet of the American Falls reservoir downstream along the Snake River to Grandview and the recovery area for this species extends from American Falls to approximately Hagerman, with known populations in the Hagerman Valley, near Minidoka Dam, near the Eagle Rock dam, and below American Falls downstream to Burley (Taylor 1987 in USFWS 1995a).



The Utah valvata snail inhabits areas with a sand and silt/mud substrate in shallow shoreline water and pools adjacent to rapids or perennial flowing waters associated with springs, and avoid rapids and areas with heavy currents (USFWS 1995a). This type of habitat is limited to the crossing of the Blackfoot River within the project area. The Blackfoot River is channelized in the vicinity of the crossing of US-91 and does not contain suitable habitat for this species.

A January 2004 Biological Opinion (BO) for the Firth Bridge Demolition Project, Key #5162, reported that Utah valvata were found in the Snake River at Firth in 2002. Subsequent surveys coordinated by the U.S. Fish and Wildlife Service in 2003 found both live and empty shells in the Firth Bridge project area. The BO concluded that the project is not likely to jeopardize the continued existence of the Utah valvata snail.

#### **9.6.4 *Canadian Lynx***

Canada lynx occur in moderately moist coniferous forest habitats that have cold, snowy winters and contain an adequate prey base of snowshoe hare. In the northern Rocky Mountains lynx generally occur at elevations ranging from approximately 4,900 feet to 6,500 feet (Ruediger et. al. 2000).

In Idaho, Lynx habitat has been identified and mapped in the mountainous northern and central portion of the State and along the eastern border from approximately State Route 34 north to the Montana border and west along the Caribou Range in Idaho. No lynx habitat occurs in the project area, with the nearest habitat located approximately 25 miles to the east, in the Caribou Range (USFS 2005).

Linkage zones, defined as areas that provide landscape connectivity between blocks of lynx habitat, have also been identified and mapped. The project area is not located within a linkage zone (USFS 2005).

#### **9.6.5 *Yellow-billed Cuckoo***

The Yellow-billed Cuckoo is rare in the western United States and is associated with forested riparian habitat, particularly areas dominated by western cottonwood and containing an under-story of willow for nesting and foraging (66 FR 38611-38626). In Idaho, the Yellow-billed Cuckoo is considered a rare visitor and breeder in the Snake River Valley, and has been recorded as occurring in Bonneville, Bingham, and Bannock Counties (USFWS 2005b).

The majority of the US-91 project corridor is not located within suitable nesting or foraging habitat for Yellow-billed Cuckoo. Forested riparian habitat does occur in the vicinity of the US-91 crossing of the Blackfoot River and potential habitat for this species may occur in this area.

## 9.7 Historic and Cultural Resources

This section explains the role of cultural resources in corridor planning and environmental documentation for the US 91 corridor study, and describes the existing conditions for cultural resources in the project's Area of Potential Effect (APE).

Archaeological and architectural inventory records and maps at the Idaho State Historical Society (ISHS) and State Historic Preservation Office (SHPO) in Boise were examined as part of the background research. Additional research was conducted at Idaho State Library in Pocatello, Idaho Falls Public Library, the Shelley Public Library, and at Bingham and Bonneville County Courthouses in Blackfoot and Idaho Falls. The Snake River Valley Irrigation District office in Shelley was visited, as was the Idaho Irrigation District in Idaho Falls.

Information was collected on previously documented cultural resources within ½ mile of US 91 corridor between Pocatello and Idaho Falls, Idaho. According to the SHPO's database, there are at least 15 documented cultural resources within a ½ mile of the US 91 study corridor. Additionally, there are at least 29 other cultural resources identified during the reconnaissance level survey within a ½ mile of the US 91 study corridor. Table 9-5 lists the previously documented and newly identified cultural resources from south to north and their approximate milepost location and approximate distance from US 91.

### Field Reconnaissance

A reconnaissance level survey (windshield survey) of the entire US 91 corridor between Pocatello and Idaho Falls, Idaho was conducted on November 17-18, 2005. Additionally, Segment 5 between New Sweden Road to Sunnyside Road was intensively surveyed on foot for archaeological and historic properties. A second visit to the project area in May 2005 collected further data on the historic properties identified during the initial field visit. Historic structures within Segment 5 from Shelley to York Road were inventoried and evaluated.

Table 9-5: Inventory of Cultural Resources Within 0.5 Mile of the US-91 Study Corridor

Identification	MP	Site Type	NRHP Eligible	Proximity to US 91
<b><i>Segment 1. Siphon Road to Sheepskin Road</i></b>				
Siphon Lateral	81	Irrigation feature	Not evaluated	Within APE
Tyhee Wasteway	82	Irrigation feature	Not evaluated	Adjacent to APE
<b><i>Segment 2. Sheepskin Road to I-15 South Blackfoot Interchange</i></b>				
Panther Lateral	85	Irrigation feature	Not evaluated	Adjacent to APE
Pine Lateral	85	Irrigation feature	Not evaluated	Within APE
Palm Lateral	85	Irrigation feature	Not evaluated	Adjacent to APE
Poplar Lateral	86	Irrigation feature	Not evaluated	Adjacent to APE
School Lateral	86	Irrigation feature	Not evaluated	Within APE
Ross Fork Lateral	86	Irrigation feature	Not evaluated	Within APE
Lander Road of California Trail System (10BK306)	87	Historic trail	Yes	Crosses APE
Township Lateral	87	Irrigation feature	Not evaluated	Within APE
Oregon Trail, Lander Road, California Trail (10BM715)	87	Historic trail	Yes	Crosses APE
Lander Road of California Trail System (10BM306)	87	Historic trail		Crosses APE
Gibson Drain	90	Irrigation feature	Not evaluated	Within APE
English Lateral	94	Irrigation feature	Not evaluated	Adjacent to APE
Gibson Canal	94	Irrigation feature crossing under ITD bridge	Not evaluated	Within APE
Nectar Lateral	95	Irrigation feature	Not evaluated	Adjacent to APE
North Canal (10BM695)	97	Irrigation feature	Yes	Within APE
North Canal Bridge (ITD#17525) (IHSI #11-1788)	97	ITD bridge	No	Within APE
<b><i>Segment 3. I-15 South Blackfoot Interchange to Airport Road</i></b>				
Arch Lateral	98	Irrigation feature	Not evaluated	Adjacent to APE
Ash Lateral	98	Irrigation feature	Not evaluated	Adjacent to APE
Bow Lateral	98	Irrigation feature	Not evaluated	Adjacent to APE
Arc Lateral	98	Irrigation feature	Not evaluated	Adjacent to APE
Dixie Lateral	99	Irrigation feature	Not evaluated	Within APE
Blackfoot River Bridge	99	Irrigation feature	Not evaluated	Within APE
Union Pacific Railroad (IHSI #11-18004)	100	Railroad	Yes	Partially within APE
Eastern State Fairgrounds (IHSI #11-17776 to 11-17785)	101	Historic structures	Yes	¼ mile
Blackfoot Armory (IHSI #11-18006)	102	Historic military structure	No	½ mile

Table 9-5: Inventory of Cultural Resources Within 0.5 Mile of the US-91 Study Corridor - continued

Identification	MP	Site Type	NRHP Eligible	Proximity to US 91
<b><i>Segment 3. I-15 South Blackfoot Interchange to Airport Road (continued)</i></b>				
Sugar Factory Housing (IHSI #11-17763)	102	Historic structure	Yes	45 feet
Sugar Factory Housing (IHSI #11-17764)	102	Historic structure	Yes	45 feet
Sugar Factory Housing (IHSI #11-17765)	102	Historic structure	Yes	45 feet
Sugar Factory Housing (IHSI #11-17766)	102	Historic structure	Yes	45 feet
Sugar Factory Housing (IHSI #11-17767)	102	Historic structure	Yes	45 feet
Divide Ditch	102	Irrigation feature	Not evaluated	Within APE
<b><i>Segment 4. Airport Road to New Sweden Road</i></b>				
West Branch Blackfoot Canal	103	Irrigation feature	Not evaluated	75 feet
Corbett Slough Canal	103	Irrigation feature	Not evaluated	Within APE
Blackfoot Canal East Branch	108	Irrigation feature	Not evaluated	Within APE
Blackfoot Canal and Bridge	113	Irrigation feature crossing under bridge	Not evaluated	Within APE
Reservation Canal and Bridge	113	Irrigation feature crossing under ITD bridge	Not evaluated	Within APE
Cedar Point Canal (IHSI #11-17789)	114	Irrigation feature	Yes	Within APE
Cedar Point Canal Bridge (ITD #17550)	114	ITD bridge	No	Within APE
<b><i>Segment 5. New Sweden Road to Sunnyside Road (Shelley to York Road)</i></b>				
Private Residence (IHSI #11-17762)	119	Historic structure	No	150 feet
Niemeier Ranch (IHSI #11-17768)	119	Historic structures	Yes	1/8 mile
1472 N. Hwy 91	120	Historic structure	No	20 feet
Snake River Valley Canal (IHSI #19-18042) and (IHSI #11-7851)	120	Irrigation feature	Yes	Within APE
Snake River Valley Canal Bridge	120	Bridge	Yes	Within APE
9648 S. Yellowstone Hwy	120	Historic structure	No	40 feet
Quigg Lateral and Siphon	120	Irrigation feature	No	10 feet
Cotton Siding (IHSI #19-18146)	121	Historic structures	No	100 feet
7320 S. Yellowstone Hwy	122	Historic structure	No	80 feet
6624 S. Yellowstone Hwy	122	Historic structure	No	70 feet
Private Residence (IHSI #19-18118)	122	Historic structures	No	¼ mile

## 9.8 Potential Hazardous Sites

A search and review of public records was conducted to identify potentially hazardous or environmentally contaminated sites along the US-91 corridor. The following databases were reviewed and searched to identify contaminated or hazardous sites:

- Federal ASTM Standards Records
- Federal ASTM Supplemental Records
- State of Idaho ASTM Standard Records
- State of Idaho ASTM Supplemental Records
- EDR Proprietary Historical Databases
- Brownfields Databases

A windshield survey of the corridor was conducted in May, 2005 to confirm the findings of the record search.

No potentially hazardous or contaminated sites along the US-91 corridor were identified through the public records search or field reconnaissance. Potential hazardous sites include areas impacted by previous chemical spills, contaminated hazardous waste sites, and leaking petroleum or gasoline products storage tanks (LUST) sites.

## 9.9 Air Quality

The US-91 North Corridor Plan study area includes portions of three counties – Bannock, Bingham and Bonneville. Within this area, air quality monitoring stations are located in the City of Pocatello and in the City of Idaho Falls. The majority of Bingham County and all of Bonneville County are in compliance with all National Ambient Air Quality Standards for carbon monoxide, particulate matter, nitrogen oxides, sulfur oxides, ozone and airborne lead.

The Environmental Protection Agency (EPA) and the Idaho Department of Environmental Quality have designated the Portneuf Valley as being non-attainment for PM<sub>10</sub>. This includes 96 square miles of Pocatello, Chubbuck and surrounding areas, primarily within Bannock County. This area was formerly referred to as the Power/Bannock County PM<sub>10</sub> area. It was split into the Portneuf Valley and federal Fort Hall PM<sub>10</sub> areas. The portion of the US-91 North Corridor study area from Siphon Road to Reservation Road falls within this non-attainment area.

EPA also has designated a Fort Hall Non-attainment Area for PM<sub>10</sub>. Most of the designated area lies west of the corridor study plan but US-91 between Reservation Road and approximately Cemetery Road fall within the non-attainment area.